

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:	McAllister et al.	Conf. No.:	1385
Serial No.:	10/537,956	Art Unit:	1637
Filed:	08 June 2005	Docket No.:	R1401-100-US
Title:	METHODS AND MATERIALS FOR REDUCING PRODUCTION OF ABERRANT PRODUCTS DURING RNA SYNTHESIS	Examiner:	Fredman, Jeffrey N.

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER 37 CFR 1.131

We, the Applicants in the above-identified patent application, declare as follows:

1. That we are the inventors of the subject matter described and claimed in the above-identified patent application.
2. That prior to 07 February 1997, we had conceived of an improved bacteriophage RNA polymerase enzyme, the improved enzyme being characterized by having a significantly diminished ability to displace RNA that causes reduced synthesis of aberrant products on templates having protruding 3' ends in the non-template strand.

Such improved enzymes include bacteriophage T7 RNA polymerase having a deletion of residue number 172 and residue number 173, bacteriophage T3 RNA polymerase having a deletion of residue number 173 and residue number 174, and bacteriophage SP6 RNA polymerase having a deletion of residues 140 through 143.

3. That prior to 07 February 1997, we had conceived of an improved method of synthesizing homogeneous mRNA from DNA templates comprising transcribing under suitable synthesis conditions DNA templates with a modified bacteriophage RNA polymerase enzyme characterized by having a significantly diminished ability to displace RNA that causes reduced synthesis of aberrant products on templates having protruding 3' ends in the non-template strand. Such modified RNA polymerase enzymes include bacteriophage T7 RNA polymerase having a deletion of residue number 172 and residue number 173, bacteriophage T3 RNA polymerase having a deletion of residue number 173 and residue number 174, and bacteriophage SP6 RNA polymerase having a deletion of residues 140 through 143.

4. That the present invention is described in a New Technology Disclosure received by the Technology Transfer Office of The Research Foundation of the State University of New York on 10 February 1997, and a letter to Dr. Albert E. Muir dated 05 February 1997 and accompanying manuscript (collectively, Exhibit "A").

6. That, subsequent to the conception of the invention, and up until the earliest patent application filing date of 11 December 2002, we diligently and actively assisted

the Research Foundation of the State University of New York in the planning, preparation, review, and filing of the above-identified patent application.

Declarants further state that the above statements were made with the knowledge that willful false statements and the like are punishable by fine and/or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that any such willful false statement may jeopardize the validity of this application or any patent resulting therefrom.

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Date